

NATIONAL TRANSPORTATION SAFETY BOARD

Office of Marine Safety
Washington, D.C., 20594

OPERATIONS/HUMAN FACTORS GROUP FACTUAL REPORT

DCA07MM015

A. ACCIDENT

Vessel: M/V Empress Of The North
Date: May 14, 2007
Time: About 0130 Alaskan Daylight Savings Time
Location: 58° 10.6' N, 135° 03.1'W
Owner/Operator: Majestic America Line
Complement: 75 Crew, 206 Passengers

B. OPERATIONS/HUMAN FACTORS GROUP

Chairman: Captain Morgan J. Turrell, Captain Rob Jones, Barry Strauch, NTSB
Washington, DC

Lt. J.G. Brierly Ostrander, USCG
Juneau, AK

Capt. Nico Corbijn/Randy Burns, Majestic America Line
Seattle, WA/Portland, OR

C. SUMMARY

On Monday, May 14, 2007 at approximately 0130 local time, the 360-foot passenger vessel *Empress of the North*, one of a fleet of seven vessels operated by Majestic America Line, grounded on a charted rock as it negotiated a turn to the west out of Lynn Canal into Icy Strait, about 20 miles southwest of Juneau, Alaska. The vessel had departed the port of Skagway at approximately 1720 on May 13th, with 206 passengers and a crew of 75, southbound for Glacier Bay. As the vessel made its way south in Lynn Canal it was progressing at its typical sea speed of 12 knots. The trip south was uneventful as it neared the area where the mate would navigate the *Empress of the North* westward into Icy Strait, on its way to its next scheduled destination of the 7-day cruise, Glacier Bay. As the vessel traveled towards Icy Strait, it struck the charted, illuminated Rocky Island. The Coast Guard and several Good Samaritan vessels assisted in evacuating the passengers and non-essential crewmembers, and safely transporting them back to Juneau. No injuries resulted from the accident, but the vessel sustained significant damage to its starboard underside and propulsion system.

D. DETAILS OF THE INVESTIGATION

THIS IS A DRAFT-NOT A FINAL REPORT

The Operations/Human Factors Group convened in Juneau on May 15, 2007, at 0830. The group documented the vessel bridge, interviewed deck personnel, and examined personnel and vessel records.

1.0 HISTORY OF THE VOYAGE

At 1720¹ on May 13, 2007, the motorized vessel *Empress of the North* departed Skagway, Alaska, for Glacier Bay, the 2nd day of a 7-day voyage. The voyage, which began in Juneau on May 12, had scheduled port calls in Skagway, Glacier Bay, and Sitka before returning to Juneau. The vessel was under the command of a licensed master, with a crew that included a chief mate, a 2nd mate, two 3rd mates, 3 able seamen (ABs) and 3 ordinary seamen (OSs). One of the 3rd mates joined the vessel in Juneau on May 12. The captain's plan for the junior 3rd mate was to have the mate observe deck operations during the week in which he and the senior 3rd mate overlapped, then he would serve as a watchstander. This was to occur during the week beginning on May 19, when the junior 3rd mate was to begin a regular 4-week schedule on the vessel, similar to the rotation of other vessel officers.

The junior 3rd mate had reported for work at Majestic America Line in their office in Portland, Oregon, on May 11, 2007. He signed employment papers and was given information about the company. He then flew commercially from Portland to Anchorage. After joining the *Empress of the North* in Juneau the next day, the 3rd mate introduced himself to crewmembers and began to learn about the vessel, its equipment, and route by observing deck operations and talking to mates and other deck crewmembers. He stood a port watch when the vessel was docked in Skagway, while the 2nd mate was conducting bridge tours for passengers.

On May 13, the senior 3rd mate was on the 0000 to 0400 watch. During this period he experienced gastrointestinal distress and reported to his superiors that he was unable to complete the watch. The chief mate relieved him for the remainder of the watch period and the vessel docked in Skagway later that morning without incident. While docked at Skagway the senior 3rd mate was sent to a local physician who examined him and recommended that he remain isolated on the vessel and off duty until his condition improved.

As a result, the captain decided to assign the junior 3rd mate to replace the ill senior 3rd mate. The captain informed the junior 3rd mate that of his intentions and asked him if he was ready to take the watch. The junior 3rd mate agreed to take the watch. The captain told investigators that, "the chief mate was in agreement [with this decision]." The 2nd mate told investigators that the captain had discussed the decision with him as well, and that he too was in agreement with the captain's decision. The captain switched the schedule of an AB to allow him to serve as helmsman during the junior 3rd mate's watch. The captain told the junior 3rd mate that the most experienced AB would serve as additional helmsman for that watch period. The captain described the AB as experienced in the local waterways and with the knowledge of the bridge equipment. He added that he, the captain, would be available throughout the watch should the 3rd mate have any questions and that the 3rd mate should not hesitate to call him in that event.

The 3rd mate entered the bridge at 2322 and met with the 2nd mate, whom he was relieving, the AB on watch and the relieving AB. He and the 2nd mate discussed the route, the equipment on

¹ All times are Alaskan Daylight Savings Time, on the 24-hour clock.

the vessel and other information relevant to watchkeeping. The 2nd mate told investigators that, during that time:

I showed him [the 3rd mate] that if he followed the track lines, he'd have no problem.² He could either go south of Rocky Island, or in the Nobeltec and on the ECDIS, it has us actually going between -- a half-mile between land [and the island] on the Snake River, we have plenty of times where we're [in passages] less than half a mile [wide]. Not a big deal, so I didn't really think it was an issue. I told him that he needed to go south of the island if he didn't feel comfortable, or he could go right down through the channel there. He didn't tell me what he was going to do either way. He just nodded his head.

At 2334, 12 minutes after the 3rd mate entered the bridge, 2 non-watchstanding crewmembers entered the bridge and engaged in non-essential conversations with the mates and AB. The conversations continued until 2341 when they left the bridge. During this period the 2nd and 3rd mates attempted to continue the discussion of navigation-related issues.³

At the end of the discussion between the 2nd and 3rd mates, the 2nd mate told the 3rd mate that he should feel free to call him during the watch period and he would be happy to respond to any questions the 3rd mate may have. The 2nd mate left the bridge at 2343, around the time that the AB on watch at the time of the accident relieved the previous AB. The 3rd mate then began his watch with that AB who was serving as helmsman.

Two additional crewmembers, an AB and an OS, were on watch on the bridge but left the bridge about 0000 and again at 0100 to perform scheduled hourly security rounds on the vessel, rounds that lasted between 30 and 40 minutes. The AB and OS were not on the bridge at the time of the accident.

The vessel was traveling on a southerly heading at a speed of about 12 knots when the watch change occurred. The AB was steering through the autopilot. They passed another vessel port to port. The AB changed to another radio channel and briefly talked to the crew of the vessel through the VHF radio. Both the AB and the 3rd mate saw Aids to Navigation lights on Rocky Island and identified the island on the charts. They confirmed that the vessel was on course. The helmsman initiated a turn north of Rocky Island, taking the path between it and Pt. Couverden. VDR data indicate that shortly before the grounding the helmsman altered the course to steer to the south of Rocky Island, rather than between it and Pt. Couverden.

² The navigation chart that was being used showed 2 tracklines, one between Rocky Island and Pt. Couverden, and the other to the south of Rocky Island. The width of the waterway between Rocky Island and Pt. Couverden was estimated to be about ½ mile.

³ 46 CFR 78.10-1 states, "Masters and pilots shall exclude from the pilothouse and navigation bridge while underway, all persons not connected with the navigation of the vessel. However, licensed officers of vessels, persons regularly engaged in training, regulating, evaluating or learning the profession of pilot, officials of the United States Coast Guard, United States Navy, National Imagery and Mapping Agency, National Ocean Service, United States Army Corps of Engineers, Maritime Administration, and National Transportation Safety Board may be allowed in the pilothouse or upon the navigation bridge upon the responsibility of the master or pilot."

Majestic America Line's Senior Vice President for Marine Operations estimated that sailing between Pt. Couverden and Rocky Island, rather than to the south of Rocky Island, saved an estimated 6 minutes of travel time. Both the 3rd mate and the AB told Safety Board investigators that the vessel was not behind schedule and that neither felt compelled to save sailing time while they were on duty during the watch period. Safety Board investigators interviewed the other mates of the vessel and none believed that sailing between the two was especially challenging for vessel operators.

After initiating the turn the AB told the 3rd mate that he didn't think that he was turning the vessel quickly enough. Crewmembers typically turned at a 10 degree per minute rate, increasing it in 10 degrees per minute increments as needed, although the captain told investigators after the accident that turning in excess of 20 degrees per minute wine glasses may start to be dumped and, approaching a rate of 30 degrees per minute, the vessel begins to heel.

The 3rd mate walked over to the helmsman and saw him increase the rate of turn. The mate was looking for the flashing green light on Rocky Island that he had seen earlier but he was unable to see it. He walked over to the starboard side to continue looking for it. He saw rocks and he immediately gave the AB a hard left command. The vessel struck rocks on the starboard side, below the water surface. The accident occurred about 0130. The vessel sustained major damage to its starboard hull and starboard Z-drive unit.

DECISION TO PUT THE 3RD MATE ON WATCH

The chief mate indicated that he informed the captain on the morning of May 13 of the 3rd mate's illness the previous night. He said that he did not have a discussion with the captain regarding replacing the ill 3rd mate with the junior 3rd mate. As the chief mate explained, "He [the captain] just brought it to my attention, that that was going to happen."

According to the captain, there was no explicit decision regarding replacing the ill 3rd mate on the midnight to 0400 watch, "...it wasn't really a decision per se, but the 3rd mate watch, it happened that we had two 3rd mates, and rather than ...request [a] waiver from the Coast Guard..." to sail without a 3rd mate, as required by the vessel's certificate of inspection (COI), the decision was made to have the new 3rd mate serve on that watch. As the captain noted, "I felt that it [the 0000 to 0400 watch] was an easy watch, so it was a good place to start" (p. 25). He added that he considered the new 3rd mate "qualified for the assignment I gave him, for sure...by virtue of his training and by virtue of what he saw on the bridge" (p. 46). The captain told Safety Board investigators that he briefly talked to the chief mate about replacing the ill 3rd mate with the new 3rd mate, and that, as the captain noted, "the chief mate was in agreement."

As the captain explained:

With...the first officer, I talked to him a little bit about ...[the new 3rd mate]. And you know basically, we talked and he [the 3rd mate] seems like a bright kid. He's you know, sharp. You know, basically because he [the chief mate] went through the checklist with them (sic) a couple of times and he went through, you know, I saw him taking him on the bridge tour of all the alarms, you know, and the fire system and things like that (p. 21).

The captain said that he assigned the most experienced AB to serve as helmsman with the new 3rd mate because he knew the AB well and he “would not withhold anything [and] would try to help him [the new 3rd mate] as best he can.” He described the AB as “a well-spoken, soft-spoken guy that ... would be very unintimidating.” He also knew that the AB was familiar with the alarms on the bridge and could effectively explain to the 3rd mate the meaning of any alarm that alerted, and would also suggest to him that he call the captain when he felt that such a call would be beneficial.

The chief mate, as he told investigators, served underneath the captain and was responsible, among other things, for overseeing the deck department. The captain told investigators that he depended on the chief mate when making important vessel-related decisions:

[The chief mate] is kind of who I rely on. [He], my first officer, is not here right now. He's been with me now for about two or three years. He's kind of my go-to guy. (p. 21)

The chief mate told investigators that there was no discussion with the captain regarding familiarizing the new 3rd mate with the route or the vessel before he was to take the watch. He said that the route that was to be followed by the 3rd mate on his watch, would put him in “a good position to continue the voyage the next morning” when he would take the 0400 to 0800 watch immediately following the new 3rd mate’s watch, and that there would not be a problem with the 3rd mate taking the watch.

WEATHER

Surface Weather Observations Hoonah, AK (PAOH) May 14, 2007. About 12 nautical miles west of the accident site.

0056 ADT ... Overcast skies; visibility 10 miles; light rain; temperature 43 degrees F; dew point 39 degrees F; relative humidity 86%; winds 080 degrees at 10 mph.

0156 ADT ... Overcast skies; visibility 7 miles; temperature 43 degrees F; dew point 40 degrees F; relative humidity 89%; winds 070 degrees at 8 mph.

Coastal Waters Forecast issued by the National Weather Service Juneau, AK on May 13, 2007 at 1600 ADT.

Icy Strait.

Tonight ... east wind 20 knots; seas 4 feet; rain

Monday ... northeast wind 20 knots; seas 3 feet; rain

Monday Night ... southeast wind 20 knots; seas 4 feet

PERSONNEL

Captain

The 44-year old captain was employed by Majestic America Line for over 3 years, all as captain, at the time of the accident. He held the following USCG licenses: master of steam or motor

vessels of any gross tons on oceans, master of auxiliary sail vessels of not more than 200 gross registered tons, 500 gross tons upon oceans, and master of towing vessels upon oceans and western rivers. His license includes the endorsements of first class pilot of any gross ton vessel on Washington main ship channels, Lake Washington ship canal, Hood Canal, Saratoga Passage, and several Washington State ferry routes. He also holds the following USCG ratings, any unlicensed deck rating including AB, tank person in charge, storage department food handler, wiper, and person in charge of medical care. He holds an STCW Certificate.

He obtained his captain's license after completing high school, following his attending maritime training school in Stewart, Florida. He then joined the Coast Guard and served for 4 years. After his Coast Guard service he worked in commercial shipping for 22 years on research vessels, break bulk vessels, tankers, towing vessels, and, for 7 years, passenger vessels.

He served for 1-½ years as Captain on the Columbia Queen, a passenger vessel operated by Delta Queen Steamboat Company. The company encountered financial difficulties and he left the company, thereafter serving as master on a passenger ship in Hawaii. After that he served as captain on a research vessel also based in Hawaii, and then he joined Majestic America Line.

On Friday, May 11 he estimated that he awoke at 0600. That afternoon a passenger experienced a medical emergency and the captain oversaw the passenger's evacuation from the vessel. Later that night he learned that the passenger had passed away and he, the purser, and the AB on watch at the time of the accident⁴ informed the passenger's wife of her husband's death. He then went to bed, at what he estimated to have been 0030 to 0100 that night, on May 12. He arose that morning about 0630 and oversaw the vessel's return to Juneau, the disembarkation of passengers, and embarkation of the passengers joining the next 7-day cruise. He estimated that he went to sleep just before midnight on May 12. He arose on May 13 at 0600 in advance of the planned 0630 arrival in Skagway. He entered the bridge that night at 2200 and left the bridge about 2230, went to his cabin and went to sleep. He was awakened by the sounds of the grounding.

The captain had been involved in a previous grounding of the *Empress of the North* on the Columbia River about a year before this accident. The Coast Guard, which was investigating that mishap, had not completed its investigation at the time of this accident. According to the Senior Vice President of Operations at Majestic America Line,

...the vessel took avoidance action and strayed out of the channel because of a barge ...that had lost control...In order to avoid a worse situation, they went outside of the buoy markers and struck ground (p. 20).

Chief Mate

The 41-year old chief mate graduated from the California Maritime Academy in 1989. He then worked as a 3rd mate on vessels based in Ft. Lauderdale, Florida, including a passenger vessel. After that he worked as a deck officer on the Washington State ferries, tankers, and then as a captain of small passenger vessels. He then served as a chief mate on fishing vessels and

⁴ The AB had been trained as a medical technician. When the passenger first felt ill the AB performed his initial onboard assessment and treatment.

thereafter, on passenger vessels along the west coast of the United States. He then joined Glacier Bay Cruise Lines, where he became a port captain and assisted as a crewmember on vessels in the Juneau area. After that he served as a chief mate on a cable vessel traveling between Oregon and Alaska. About three years before the accident he joined American West Steamboat Company, a predecessor of Majestic America Line, as a 3rd mate, becoming a chief mate about 2 years later.

Because of a death in his family around the time of the accident, the chief mate was not available when investigators conducted the on-scene portion of the investigation. He was interviewed by telephone 6 weeks after the accident. He told investigators that, after his involvement with the evacuation of the ill passenger, he went to sleep about 2200 on May 11 and arose about 0315 on May 12. He went to bed about 2300 on May 12, but was awakened just after midnight on May 13 because of the ill 3rd mate. He went to the bridge about 0030 and completed the remainder of that 3rd mate's watch and then his own 0400 to 0800 watch. After completing the watches he returned to his cabin where he slept from 0830 until he was needed for the captain's safety meeting, about 1000. After the meeting, he returned to his cabin and slept from around noon to about 1515 before arising for the start of his scheduled 1600 to 2000 watch. He went to sleep about 2200 on May 13 and then was awakened by the accident.

The chief mate told investigators that he did "not have that information" in response to questions about company policies on assigning new crewmembers to serve as watchstanders upon joining the vessel, and on whether the company had a list of items that crewmembers were to accomplish upon being assigned to the vessel.

Third Mate

The 22-year old 3rd mate graduated from California Maritime Academy on April 28, 2007, with a BS Degree in Marine Transportation. He held a USCG 3rd Mate of Steam and Motor Vessels license for vessels of any Gross Tons, upon Oceans, issued on April 28, 2007. In addition, he was issued a USCG Merchant Mariners Document on the same day with the following ratings: wiper, stewards department (food handler), person in charge medical care, life boatman, fast rescue boat, tank assistant (DL), and any unlicensed deck rating including AB. Both were issued by USCG Regional Examination Center, San Francisco, California.

This 3rd mate met the vessel's captain in January 2007 when the captain had visited the California Maritime Academy campus during a campus job fair. The 3rd mate was one of several students who had expressed an interest in employment with Majestic America Line. Of the estimated 11 to 12 students at the job fair who were interested in the company, the 3rd mate most impressed the captain because of his enthusiasm for the company, as evidenced by his researching the company and his familiarity with it and its operations. Before he graduated the 3rd mate was offered a job as a deck officer by Majestic American Line and by another company. He accepted Majestic America Line's employment offer because he wanted to work on a passenger vessel and the other company was not a passenger carrier.

The 3rd mate began his employment with Majestic America Line on May 11, 2007, in their office in Portland, Oregon. He met with a company human resources representative who told him that, according to the 3rd mate, he would likely go through a training program on the *Empress of the*

North itself. The company arranged for him to fly to Juneau, by way of Seattle, where he spent the night. On the morning of May 12 he flew from Seattle to Juneau where he joined the vessel. There he met with the captain and other crewmembers, was given a passenger stateroom, and met the purser in order to get a crew identity card. He then went to the bridge about the time the 3rd mate was relieving the 2nd mate, introduced himself to the both mates and to the ABs, and then walked around the vessel to familiarize himself with it. He went back to the bridge and between 1600 and 1800 observed the departure from Juneau while the chief mate was on watch. The chief mate introduced him to additional deckhands, and he started to “ask the chief mate about operations.” The chief mate also informed the 3rd mate that the captain was to hold a weekly all-crew meeting the next morning to review safety and operational items but he did have to attend. The 3rd mate had dinner about 1800.

The 3rd mate estimated that he went to sleep between 2100 and 2200 and awoke at 0500. He went to the bridge at 0530, observed the arrival into and mooring at Skagway at 0645, and assisted in passenger disembarkation. He then attended the captain’s safety meeting with the crew. Thereafter he went ashore to run some errands and upon his return he was told about the ill 3rd mate. Later that day, after the ill 3rd mate returned from seeing the physician and being advised of the need to be isolated, the ill 3rd mate was given the junior 3rd mate’s cabin, and the junior 3rd mate moved into and shared the cabin of the 2nd mate. The junior 3rd mate then reported to the bridge and took the noon to 1600 watch while the vessel was docked in Skagway. During this watch the captain informed him of the need to stand the midnight to 0400 underway watch. Both the captain and chief mate told him that he would be on watch with the vessel’s most experienced AB, who would be steering the vessel. The junior 3rd mate remained on the bridge with the chief mate and observed him perform the gear test. He had dinner at 1700, went to his new cabin and slept from 1800 to 2300. He arrived on the bridge about 2320.

3RD MATE’S EDUCATION

The 3rd mate served as a student deck officer at sea on the California Maritime Academy vessel, *Golden Bear*, for 4 months, 2 in the summer of 2004, following completion of his freshman year, and 2 in the summer of 2006, following completion of his junior year. The courses, worth 8 credits for each 2-month session, were not graded. He also completed two 2-credit courses at the college that involved navigation on a bridge simulator, one in the Spring 2006 semester, in his junior year, and one in the fall of 2006, in his senior year. These courses were also not graded.

Safety Board investigators interviewed 6 of the 3rd mate’s instructors at California Maritime Academy, each of whom addressed various deck officer skills within the classes. Other instructors taught courses required for his degree but which did not offer opportunities to observe his navigation or ship handling skills.⁵ Each instructor characterized his performance in class as “average” and “in the middle,” except for an instructor in ship handling who described his skills as excellent. Instructors who oversaw his navigation in either the bridge simulator or on the bridge of the school’s training vessel expressed confidence that he could successfully determine a vessel’s position, execute a turn, and perform the basic navigational abilities of a recent graduate of a maritime college. The instructors believed that the junior 3rd mate was qualified to serve as a watch officer. However, they believe that, in general, placing a recent graduate of the school with no watch experience outside of a training environment, on watch, at night, in

⁵ E.g., introduction to sociology, English literature, rules of the road, etc.

pilotage waters, in an unfamiliar vessel, without additional preparation and/or supervision, was imprudent.

AB

The 36-year old AB has been employed by Majestic America Line for 1 year and 5 months. Before that he worked for US Army intelligence. After leaving the Army he was trained in and practiced nursing. Several years later he joined National Park Service concessionaire managing a hotel. He then worked for Glacier Bay Cruise Lines as a hotel manager for 2 years. In that time he “fell in love with the ocean.” He then decided to become a deck officer and realized that he would have start at the bottom and work his way up. He stayed with Glacier Bay cruises in management for the rest of the season, then he worked periodically on deck to build up his sea time. His transition to the bridge started with that cruise line. Thereafter, Glacier Bay Cruise lines went bankrupt and he started working for Majestic America Line as an OS about 17 months before the accident. During the off season he resides in the country of Peru.

On May 11 he went to sleep about 1900 and arose at 0600 on May 12. He then went to sleep about 1900 on May 12 and arose at 0600 on the day of the accident. Later that day he went to sleep about 1500 and arose at 2300.

Drug And Alcohol Testing

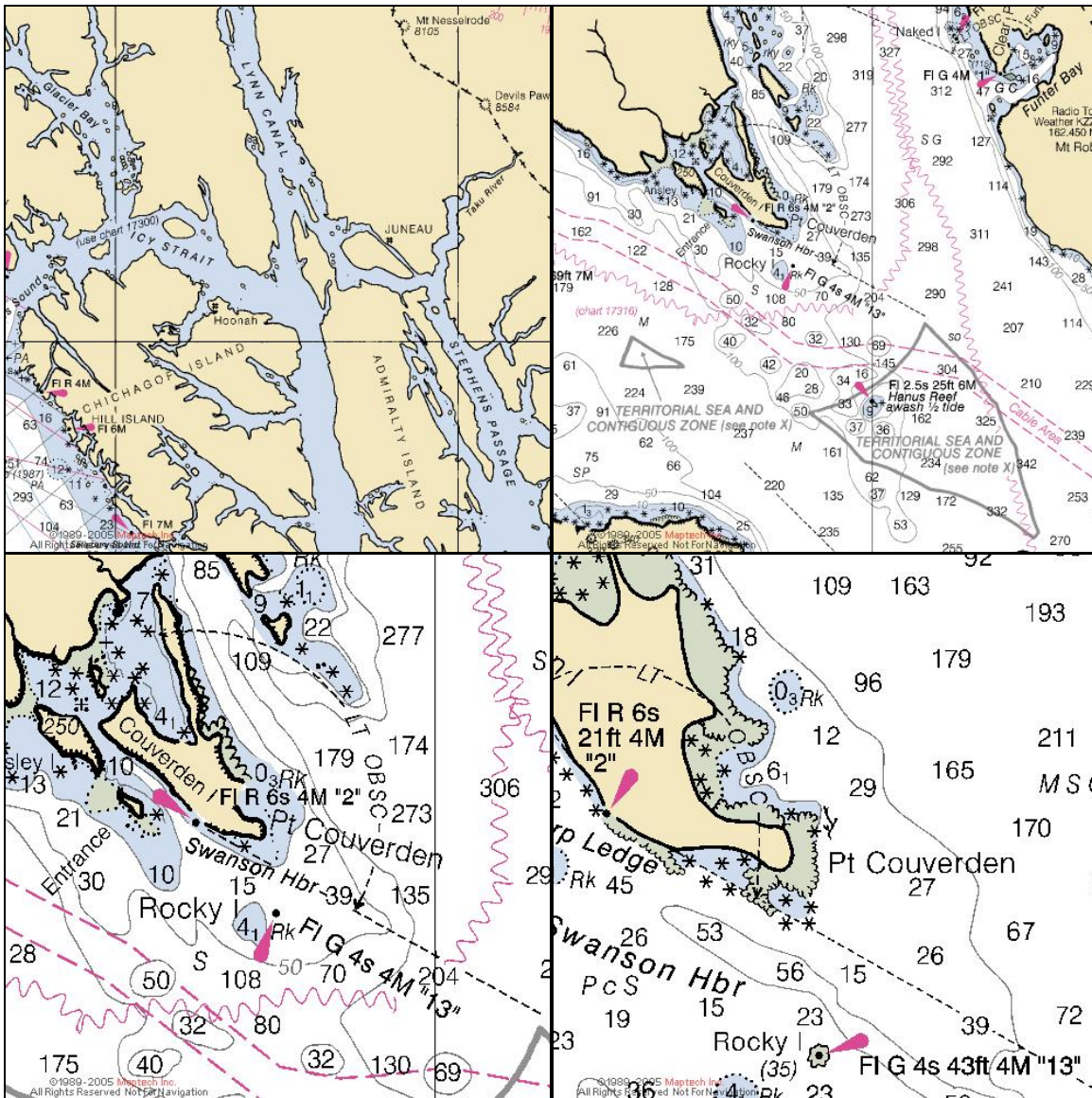
After the evacuation had been completed the captain, third mate, and other deck and engineering officers were given breathalyzer tests on the vessel, to detect the presence of alcohol. The results of all the tests were negative. Upon arrival in port they were given drugs tests as well with the samples sent to a local laboratory for testing. Again, the results of all the tests were negative.

VESSEL INFORMATION

The M/V Empress of the North was completed in 2003 and delivered to American West Steamboat Company, which was subsequently became Majestic America Line. The vessel is flagged in the United States, and its hailing port is Juneau, Alaska. Its classification society is American Bureau of Shipping (ABS).

The vessel is 5,975 international tons and 296 regulatory tons. It is 299.3 feet in length. It has a Coast Guard certificate of inspection (COI).

WATERWAY INFORMATION



The grounding occurred in Southeast Alaska off of Point Couverden, which is at the southernmost end of an isthmus extending into the junction of the eastern end of Icy Strait (which runs northwest to southeast) and Lynn Canal (which runs roughly north-south). Specifically, the ship grounded on the southeastern shoals of Rocky Island (58 10.6 N and 135 03.1 W).

Coast Pilot describes Icy Strait as follows:

“Cross Sound and Icy Strait are the northernmost sea connections for the inland passages of southeastern Alaska, separating the mainland between Cape Spencer and Point Couverden, and from Yakobi Island and Chichagof Island between Cape Bingham and Point Augusta. The waterway is about 61 miles long from

Cape Spencer at the W entrance to Point Augusta, at its junction with Chatham Strait. It averages 4 to 8 miles wide, but in places this is reduced by islands.

Coast Pilot describes Lynn Canal as follows:

Lynn Canal extends from the junction of Chatham Strait and Icy Strait, at Hanus Reef, in a NNW direction for about 58 miles to Seduction Point, where it divides into two arms, called Chilkat Inlet and Chilkoot Inlet; the latter inlet extends 25 miles farther N from Seduction Point. At Rocky Island, the canal is 5 miles wide; from Point Howard to Ralston Island about 3 miles wide; thence it averages 6 miles wide to Seduction Point. The canal is nearly free of dangers, and the water is generally very deep. The shores as a rule are very high and wooded, with many bare mountain peaks and small glaciers in nearly every ravine. It is reported that in the winter N winds in the canal often attain a maximum speed of about 70 knots.

Coast Pilot describes Rocky Island as follows:

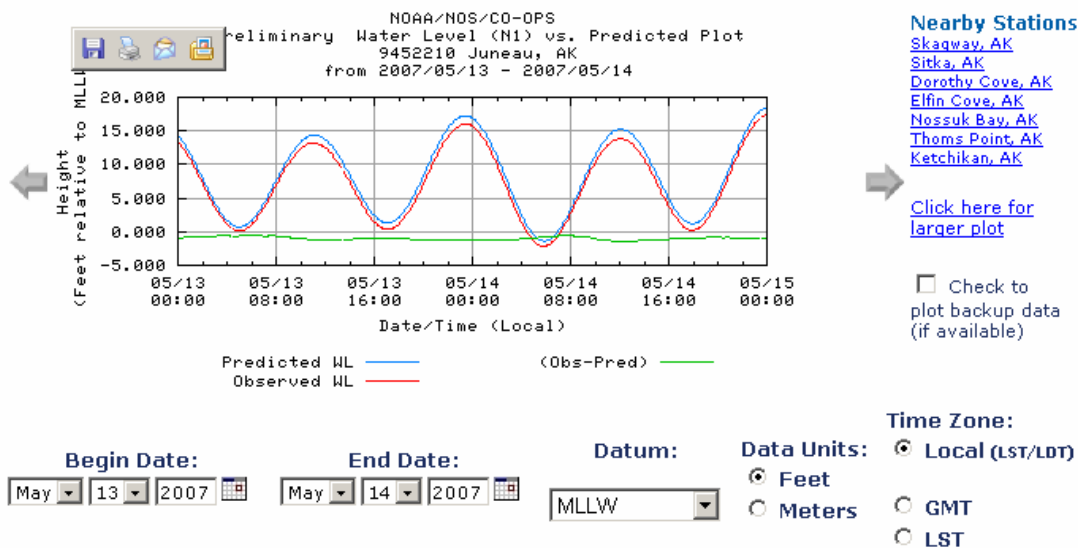
Rocky Island, grass covered and marked by a light, is 3.2 miles NW of Hanus Reef. The water is deep to within 250 yards of the island. As the currents are erratic in the channel between Rocky Island and Point Couverden, the slight saving in distance this channel offers does not warrant its use; however, if used, vessels should favor Rocky Island, as shoal water extends from Point Couverden.

Coast Pilot notes that, "currents in Lynn Canal have a velocity of 0.3 to 1 knot in the S part, diminishing in velocity toward the head." Coast Pilot also notes that "strong tide rips occur at the entrance to Swanson Harbor with a slight S breeze."

NOAA tide data for Juneau (the closest data station) indicate that at the time of the accident (approximately 0130 local time) the tide had just begun to ebb.

Juneau AK:

Tide Data



COMPANY INFORMATION

The senior vice president of marine operations oversaw deck and engine operations for Majestic America Line. He had been in the position for about 2 months before the accident. Before that he was a maritime consultant and before that he was first a passenger vessel master with Holland America Line and then Director of Environmental Compliance with the same company. He reported to the president of Majestic America Lines, and he oversaw, among others, the vice president of marine operations. Vessel masters reported to the vice president.

About one month before the accident Majestic America Line acquired Windstar Cruises, a high-end subsidiary of Holland America Line. The senior vice president's description Majestic America Line did not include its structure since the addition of Windstar assets.

According to the company's website, Majestic America Line is part of Ambassadors Cruise Group (ACG), the cruise division of Ambassadors International, Inc. a diversified publicly traded company that, "develops, markets and manages performance improvement programs, and provides event services, utilizing incentive travel, merchandise awards and corporate meeting services."⁶ As explained on its web site:

On April 25, 2006, ACG acquired the cruise-related assets and liabilities of Delta Queen pursuant to an Asset Purchase Agreement, dated April 6, 2006, by and among ACG, Delta Queen Steamboat Company, Inc., American Queen Steamboat, LLC, Delta Queen Steamboat, LLC, and Mississippi Queen Steamboat, LLC. Pursuant to the purchase agreement, ACG acquired three ships, the American Queen, Delta Queen and Mississippi Queen, and associated operating assets of Delta Queen. On October 13, 2006, ACG purchased the

⁶ Cite website

Columbia Queen during a foreclosure auction. On June 12, 2006, ACG acquired the 48-passenger Executive Explorer, and renamed the ship Contessa.

During the year ended December 31, 2006, the Company conducted its cruise operations through its wholly-owned subsidiary Ambassadors Cruise Group. Through the American West acquisition, it acquired the 223-passenger Empress of the North and the 142-passenger Queen of the West. Through the Delta Queen acquisition it acquired the 436-passenger American Queen, the 412-passenger Mississippi Queen and the 176-passenger Delta Queen. During 2006, the Company's cruise operations consisted of United States flagged cruise ships. As of December 31, 2006, the Company operates seven United States flagged cruise ships under the Majestic America Line brand in North America, including the Empress of the North, Queen of the West, Columbia Queen, Contessa, American Queen, Delta Queen and Mississippi Queen. Its United States flagged cruise ships offer a total of 1,587 passenger berths.

About 2 weeks before the accident Majestic America Line hired a former vessel captain to serve as Director of Marine Compliance. As the senior vice president explained, this position was part of the company's efforts to upgrade its safety management system (SMS). Although of all Majestic vessels only the *Empress of the North* had an SMS, required because it operated internationally between the U.S. and Canada, the company intended to upgrade it and apply it to all vessels in its fleet. The American Bureau of Shipping was the company's outside SMS auditor. The company was also in the process of restructuring its marine operations department, with the vice president for marine operations becoming the vice president for technical operations. Other positions were to be modified into vice president of nautical operations, and into technical superintendents based in Portland and St. Louis.

The senior vice president of operations indicated that the company's corporate culture stressed "safety first at any time." To this effect senior management, including Majestic's president, went onto each vessel in the spring, met with the crew, and presented a video that explained this concept.

PREVIOUS ACCIDENTS

Investigators identified 3 previous significant allisions or groundings involving the *Empress of the North*. The first 2 incidents occurred while the company was under previous management.

On October 22, 2003: The *Empress of the North* was up bound on the Snake River, Washington, and entered into the Ice Harbor lock and dam. The lock was filled, and when the water reached the proper level, the upstream gate was lowered. A short time later, the power plant lock master radioed the *Empress* that it was clear to exit. The crew cast off lines and began to exit the Ice Harbor lock and dam. However, the upstream gate, the gate over which it had been cleared to pass, had not been lowered sufficiently and the vessel struck the gate as it was crossing over it, sustaining damage to its forward ballast tank. There were no injuries or pollution related to the incident.

On November 27, 2003, the *Empress of the North* was down-bound on the Columbia River, with 68 passengers and 56 crew. After departing the Dalles Lock, in Dalles, Oregon, the captain turned the watch over to the second mate. Shortly thereafter, the helmsman requested permission from the watch mate to shift the autopilot to hand steering. During his efforts to shift the steering, control of the vessel's propulsion was lost and within seconds it hit the embankment, and slid back into the water. The vessel grounded on the Washington side of the Columbia River, and sustained damage to the hull, requiring shipyard repairs. Seven passengers and 5 crewmembers were injured in the grounding, with 3 requiring medical attention beyond basic first aid.

On March 24, 2006, the *Empress of the North* grounded on the Columbia River near Washougal while trying to avoid the towing vessel *Bruce M.*, which was having difficulty maneuvering in the channel, near buoy 49. One hundred and seventy eight passengers and 79 crewmembers were onboard at the time. The vessel sustained significant damage, but no injuries or pollution was reported. The *Empress* captain at the time of this incident was in command of the vessel at the time of the May 14, 2007, accident.

The senior vice president of operations said that, as a result of this accident, the company intended to implement a matrix of requirements that crewmembers had to meet before they could serve as watch officers. Ultimately, the master and the chief mate would sign off statements attesting to their witnessing the person who is to stand watch as sufficiently familiar with the vessel and the route to effectively serve as watchstander.

Capt. Rob Jones

Barry Strauch